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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,600	11/19/2003	Shigetomo Tsujihata	Q78466	6440
23373	7590	05/23/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			SCHWARTZ, PAMELA R	
			ART UNIT:	PAPER NUMBER
			1774	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,600

Applicant(s)

TSUJIHATA ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/19/03, 3/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasahara et al. (6165606). The patent discloses a support having thereon at least one recording layer comprising hydrophilic binder and inorganic particles. The particles may be silica, the binder polyvinyl alcohol, and a cross-linking agent for the binder may be included as well (see col. 4, lines 53-67). Cationic mordant may be present which meets the limitations recited in claim 1 concerning the cationic resin including a unit represented by formula 1 (see col. 5, lines 1-28, col. 7, lines 37-40). Particulars of the cationic mordants are set forth at col. 8, line 26 to col. 13, line 23). The reference discloses inclusion of multiple mordants at col. 7 as set forth above, and also discloses inclusion of cationic binders and surfactants that would act as an additional mordant as well (see col. 13, lines 34-59 and col. 15, lines 27-42). It is noted that claim 10 discloses process of formation steps, however, there is nothing of record to indicate that these steps will yield a medium structurally distinct from the set forth in the reference.

2. Claims 1, 2, 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al (6165606) for reasons set forth above, and further in view of Sugiyama et al. (6,773,770). Sugiyama et al. disclose an ink jet recording material including in the ink receiving layer, pigment, binder, and a cationic resins having a cation equivalent of 1.5 to 6 meq/g (see the abstract). This cation equivalent is

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disclosed as enhancing the colored image-forming property and resistance to blotting (see col. 4, line 65 to col. 5, line 20). Cation equivalent is an inherent property of a cationic resin. Based upon the disclosure of the secondary reference and the reasons set forth therein for controlling the cation equivalent most preferably within the range of 2.5 to 4.0 meq/g, it would have been obvious to one of ordinary skill in the art to control the cation equivalent of the cationic resin of the primary reference to achieve these advantages. In addition, with respect to claim 9, it would have been obvious to one of ordinary skill in the art to include one or more cationic mordanting materials based upon the suggestions of the primary reference.

3. Claims 1-4, 6-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima et al. (4830911). The reference discloses an ink jet recording sheet which is coated with a water soluble polymer as set forth at col. 2, line 58 to col. 3, line 18. Additional fractions of the polymer may include styrene (see col. 3, line 32-41) which inherently has an I/O ratio as required by applicants' claims. Pigment, including silica, binder, including polyvinyl alcohol, and a cross-linking agent for the binder may be present (see col. 4, line 4 to line 26). It is noted that claim 10 discloses process of formation steps, however, there is nothing of record to indicate that these steps will yield a medium structurally distinct from the set forth in the reference.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. for reasons set forth above and further in view of Sugiyama et al. (6,773,770). Sugiyama et al. disclose an ink jet recording material including in the ink receiving layer, pigment, binder, and a cationic resins having a cation equivalent of 1.5

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to 6 meq/g (see the abstract). This cation equivalent is disclosed as enhancing the colored image-forming property and resistance to blotting (see col. 4, line 65 to col. 5, line 20). Cation equivalent is an inherent property of a cationic resin. Based upon the disclosure of the secondary reference and the reasons set forth therein for controlling the cation equivalent most preferably within the range of 2.5 to 4.0 meq/g, it would have been obvious to one of ordinary skill in the art to control the cation equivalent of the cationic resin of the primary reference to achieve these advantages. The polymers according to the reference that are the same as those recited by applicants' disclosure will have the required I/O value of the claims since this value is based upon chemical structure.

In addition, with respect to claim 9, it would have been obvious to one of ordinary skill in the art to include one or more cationic mordanting materials since the language of the primary reference discloses inclusion of one such material which naturally teaches to one of ordinary skill in the art that two such agents may also be used with the expectation of similar results.

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6743850. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reference discloses an ink jet recording medium comprising a substrate, and a coating of pigment particles and binder, wherein the pigment particles bond with a cationic polymer which has the structure of the polymers instantly claimed. The method of claim 10 and inclusion of cross-linking agent are also recited by the patent claims. Since the groups can be the same as those of the instant claims, I/O values and cation equivalent values which are dependent upon this structure will also be the same or similar to those of the instant claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
May 16, 2005



PAMELA R. SCHWARTZ
PRIMARY EXAMINER